INDUSTRY & ACADEMIC EXPERTS

Dr. Thomas Smolka
Managing Director
Reinhausen Australia

Thomas is a specialist in grid planning, grid integration of dispersed generation units based on renewable energies. Thomas has been responsible for the business development of voltage regulation distribution transformers (VRDT).

Alan Brown
Snr. Service Engineer
Reinhausen Australia

Alan joined Reinhausen Australia in 1999 and for the last 18 years has been an integral part of the service division, being MR’s most experienced OLTC technical specialist.

Julian Guild
Sales Specialist
ABB Australia

Over a 38 year career with ABB, Julian has held a variety of roles in transformer design, product development, software, manufacturing, design management and sales & marketing. Julian supports ABB’s full transformer product and solutions portfolio.

Mike Elms
Principal Engineering Technician
Substations Western Power

Mike Elms has been employed with Western Power / predecessors for 34 years. Mike has extensive network field experience, including maintenance/network response of transmission and distribution HV installations.

Ross Kempnich
Technical Operations Mgr
Essential Energy

Ross is the Technical Operations Manager for Essential Energy. He has worked for 36 years in this utility. He has “hands on” experience with tap changers. His is involved in the testing, maintenance, and condition assessment of HV Plant.

Karl Haubner
Doble Australia/High Voltage Solutions.

Karl joined Doble in 2004 and is employed as the High Voltage Test Application Engineer servicing the Asia-Pacific region. Karl has worked as the Superintendent of the HV Test Laboratory for Western Power.

Dr. Wenyu Guo
OMICRON Australia

Wenyu Guo has been with OMICRON Australia as a Field Application Engineer since 2012. He is also the Asia-Pacific Regional Application Specialist for power transformers testing.

Dr. Dan Russell
Network Control Engineer Energy Qld

Industry experience in power transformer & tap changer maintenance, testing & failure investigations.

PRICING

TIC MEMBERS

PLATINUM

Platinum Attendee
Complimentary (Conditions Apply)

Additional Platinum
Member Attendees ........................ $1300 pp.

GOLD

Member Attendees: ..................... $1500 pp.

NON TIC MEMBERS

ONE ATTENDEE .............................. $1650 pp.

Three or more Attendees
(10% DISCOUNT)

All prices are inclusive of GST.

REGISTER ONLINE AT:

http://www.itee.uq.edu.au/TIC-cpd

Registrations close 5/2/18
(Unless all places filled earlier)
Key Learning Outcomes:

- Understand the basic principles of tap changers, including oil, vacuum.
- Learn the basic arrangement of regulating windings, benefits and issues of oil and vacuum diverters. Tap changer considerations for renewables and grid integration.
- Understand key tap changer specification considerations.
- Understand tap changer designs and applications, differences between diverters and selector type, Loading capability, the effects on transformer windings.
- Become familiar with OLTC maintenance for oil and vacuum types. Witness live of diverters maintenance, steps to take for high diverter moisture content.
- Participate in a forum for OLTC fault investigation and supply restoration.
- Understand MR & ABB retrofit options where oil diverters are replaced by vacuum.
- Understand the benefits of dynamic resistance tests.
- Be informed of innovative condition assessment of tap-changers using acoustic measurements, signal processing techniques used and results from field trials, case study.
- Be exposed to how some utilities are implementing life cycle oriented maintenance of tap changers.
- Learn about high moisture issues in diverters, DGA assessment, life extension.
- Learn about OLTC failures due to silver sulphide formation.

COURSE OUTLINE-Tap Changers

DAY 1—14 February 2018
Tap Changer Principles— Basic switching principle of On-Load Tap-Changers. Design principles of oil type OLTCs, Vacuum switching technology in OLTCs, OLTCs and alternative insulation liquids.

Tap changer Design and Applications—
Basic arrangements of regulating windings, Examples of commonly used winding schemes, Vacuum vs Oil Diverters, benefits and issues Tap changers considerations for the renewables. Live demonstration of GRIDCON® iTAP/ECOTAP® VPD operation for distribution transformers.

Tap Changer Specification from an end-customer perspective-
Application based specification, Bolt-on or in-tank?
Oil or vacuum technology? Understanding failure mechanisms, case studies.

Tap Changer Designs and Applications:
Practical differences between diverters type and selector type. Protective devices for tap changers.

Maintenance of OLTCs -Manufacturers Recommendations
What are key items to consider? Steps to take for high moisture content in tap changer diverters. Extent of tap changer maintenance for oil and vacuum type tap changers, Live demonstration of diverters maintenance, Cost-benefit analysis / Case studies

Forum - OLTC fault finding and restoration.
What steps to take when an OLTC has failed? System emergency- Can your transformer be returned to service with a faulty OLTC (fixed-tap)? What options must be considered for OLTC repairs?

DAY 2—15 February 2018
Retrofit Options for Tap Changers during Tx mid-life refurbishments
Technical options for MR/ABB OLTC’s, Justification and Benefits, Project examples for replacing oil type diverter with vacuum diverters

Tap Changer Field Testing.
Case study -benefits of dynamic resistance measurements
Condition assessment of tap-changers using acoustic measurements?

Implementing Life cycle Oriented Maintenance -Utility Experience
Life cycle management— Utility Companies perspective
Silver Sulphide Encounters, DGA assessment of OLTCs including high moisture, maintenance testing & anomalies, maintenance strategies:—time based or condition based? OLTC Retrofit examples during mid-life refurb

Who Should Attend?

- Procurement, Asset Strategists, maintenance managers and engineers.
- Generation, transmission and distribution personnel.
- Consultants, designers and operations staff in the renewables, manufacturing, mining, industrial and infrastructure organisations.

Course numbers are LIMITED.

Book NOW to secure a place.

Register via the link at:
http://www.itee.uq.edu.au/TIC-cpd